



2006 Delaware Shorebird Project Season Newsletter

Delaware Division of
Fish and Wildlife

Volume 1, Issue 1

August, 2006

Shorebird Salute: Reflections from the Editor

By Annie Jacobs, Volunteer Coordinator

The noise was full, rich and bodied—shorebirds, flocking in a thick horde, eating intently and chittering high speed calls and songs. The red knot song—a series of soft whistling notes described as “por-por-por-por-poor meee, poor meee” piped in from the chorus. Through my scope they were teeming like people in a street shot of Manhattan, the crowds so thick that the ground disappears. At once the birds stood still, necks stretched and heads up. Feeding was put on hold and all eyes were on the horizon. One group of birds

lifted in flight and left the small spectrum of my spotting scope. They circled and dispersed, and

north. Indeed the red knot’s brick red bodies were plump, and their song described the start of the

breeding season—not here in Delaware’s hot summer, but far north, above the Hudson Bay. In the evenings we’d begun to observe groups of birds departing from their rest stop: They chatter first, and they may sing, and



Chris Bennett

some of them returned to the spot they picked up from. It was the third week in May, and the shorebirds were flighty, possibly because they were getting ready to complete their migration

then they pick up and begin to rise. Some turn back- it is too soon- but others continue up the Mispillion river and towards the pathway that will carry them to the very grounds from whence they originated. Cont’d on page 4

Season Summary

By Kevin Kalasz, Delaware Shorebird Project Coordinator



Chris Bennett

The weather conditions in the Delaware Bay seemed ideal for migratory shorebirds in 2006, despite a late

April oil spill that brought tar balls to Delaware beaches. Most of the tar balls were removed prior to horseshoe crab spawning and shorebird migration.

Even in early May, warm waters prompted horseshoe crabs to begin spawning before the majority of shorebirds made it to the Bay.

Bay- wide egg survey

Initial results from Delaware’s samples of the Bay-wide egg survey support the observation of early spawning. There were, on average, twice as many

eggs available to shorebirds during the migratory period this year compared to 2005. The peak in egg availability for shorebirds (eggs in the first 5 cm of

Cont’d on page 2

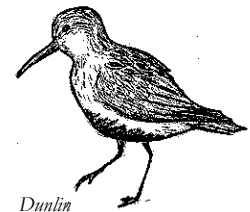


Chris Ordway



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Dunlin

Featured drawings by Shorebird Project volunteer and University of Delaware Graduate Student Marnie Pepper can be enjoyed throughout this newsletter.

Season Summary, continued from page 1

sand) coincided with the peak of migration (Fig. 1) with nearly 3½ times the number of eggs compared to last year. This is quite an improvement over 2005 and will hopefully have supported a successful migration and nesting season for shorebirds!

May, we still managed to reach our target number (350 of each target species) for red knot and ruddy turnstone, and we came close with sanderling. In total we banded 2,500 shorebirds of 12 different species (Table 1). All banded birds were weighed, assessed for

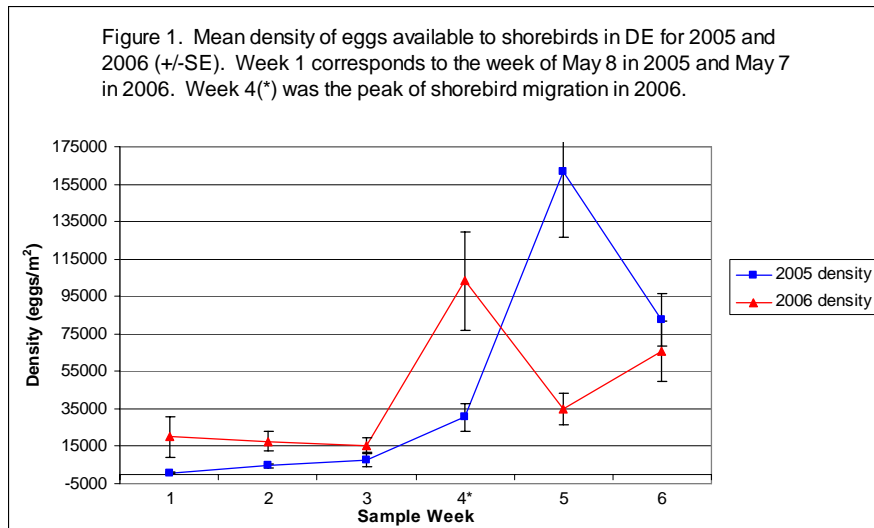


Rob Robinson

UVL is the unique "signature" for this sanderling. Sightings of these flags help biologists monitor stopover duration and population dynamics.

number consistent with our effort in 2005. On the 25th of May, Nigel Clark, Simon Gillings, Lys Muirhead, and Jean Woods recorded 482 of these! We now have over 1,500 individual histories of red knots from banding locations in Argentina, Chile, Brazil, U.S. and Arctic (Table 2). In the coming weeks, these will be combined with records from NJ and VA and assessed for movement patterns in the Bay and stopover duration.

THANK YOU to all involved in the lab, field and logistical support that made the 2006 research season possible! Please see sponsor and volunteer recognition in this newsletter.



Aerial counts

Each spring, New Jersey state biologists conduct a weekly baywide aerial count, providing an index of shorebird numbers in the Delaware Bay. The 2006 aerial surveys showed red knots peaking at 13,445, which is comparable to the last two years. Ruddy turnstones peaked at 18,585 compared to past years' peaks at over 40,000 birds.

However, aerial counts alone do not determine stopover population size or stability. Analysis of turnover rates from both Delaware and New Jersey resighting data (currently underway) will be used to assess population stability for all target species.

Capture and Banding

Our 2006 capture and banding target species were red knot, ruddy turnstone, and sanderling. Although appreciable numbers of red knots didn't arrive in Delaware until the 4th week in

plumage, measured and released. Each banded red knot had one covert feather clipped for the stable isotope study. The feathers currently being processed for analysis of stable isotope ratios (the ratio of carbon and nitrogen) which will ultimately reveal the wintering location of each bird.

Our location at Slaughter Beach allowed us to make several catches of semipalmated sandpipers using walk-in traps and the whoosh net. These catches provided useful data on semipalmated sandpiper weight gain through the season and offered excellent volunteer training opportunities.

Resighting

This spring's "resighting" effort (or scanning for "flags" that distinguish each bird as an individual) was tremendous. We managed to record 7,576 individually marked birds including red knot, ruddy turnstone, sanderling and semipalmated sandpiper- a

Table 1. 2006 capture totals

Species	Total Banded
Red Knot	445
Ruddy Turnstone	445
Sanderling	167
Semipalmated-Sandpiper	1089
Short-billed Dowitcher	196
Dunlin	146
White-rumped Sandpiper	4
Least Sandpiper	3
Black-necked Stilt	2
Willet	1
Black-bellied Plover	1
Spotted Sandpiper	1
	2500

Season summary, cont'd from page 2

Table 2. 2006 resighting totals

Species	Banding Location	Number of Individuals
Red Knot	USA (Lime)	1295
	Argentina (Orange)	254
	Chile (Red)	22
	Brazil (Blue)	17
	Arctic (Yellow)	2
		1590
Ruddy Turnstone	USA (Lime)	757
Sanderling	USA (Lime)	385
Semipalmated Sandpiper	USA (Lime)	9



Stories from the Field

Finding rejuvenation in shorebird work

By Uday Kumar, Volunteer

I became interested in watching shorebirds about 5 years ago and found that they are easy to observe through a binocular or scope. My fascination with birds grew as I got to know more about their way of life. In my job as a Chemist for DuPont, the focus on project deadlines and quarterly revenues started to get tiring. Looking for an opportunity to do something totally different to rejuvenate myself, I learned about the Delaware Shorebird Project. I reasoned that I like watching shorebirds, and so working with people and understanding more about shorebirds is not such a bad idea!

That was three years ago, and I have since had a great time volunteering for the project. It is a relaxing environment with many wonderful people that I have had a chance to get to know. I have learned so much by just listening to everyone.



The Project is also great way to recharge my batteries, and there have been some memorable moments along the bay-

shores such as: Resighting from the boat one late afternoon in Mispillon Harbor during a rising tide. As the tide came in, horseshoe crabs arrived on the beach to spawn. The entire boat was soon surrounded by the animals. Oblivious to my

presence, red knots, sanderlings, turnstones and semipalmated sandpipers began feeding on the horseshoe crab eggs. The birds were so close that I could touch them! The late afternoon light added magic to the whole scene- just the type of moment that brings me back year after year.

Beyond Beans and Burgers: The shorebird team creates culinary delights!

Brianna's Banana Pudding

- 1 package cream cheese
- 2 small packages of instant vanilla pudding
- 3 cups milk
- 1 can sweetened condensed milk
- 1 tsp vanilla
- 1 12oz container of cool whip
- 6 bananas
- 1 box nilla wafers



Mix cream cheese and pudding together until cream cheese is broken up into small pieces. Add milk and vanilla, mix well. Fold in container of cool whip. Add sliced bananas and nilla wafers. Cool for two hours to set.

Karen's Cheesecake

preheat oven to 375°F.

Crust:

- 2 cups fine-ground graham crackers
- ¼ cup fine-chopped walnuts
- ½ cup melted margarine

Mix crust ingredients with fork and press into bottom and sides of spring pan.

Filling:

- 2 8-oz. packages of cream cheese (not light or fat free!)
- 3 eggs
- 1 cup sugar
- ¼ teaspoon salt
- 2 tablespoons vanilla extract
- 1 teaspoon almond extract
- 3 cups sour cream (not light or fat free!)

Beat together all ingredients, except sour cream, at high speed until relatively smooth. Fold in sour cream. Pour into crust. Bake for 45 minutes. Let cheesecake cool before putting in fridge for 4-6 hours to set.

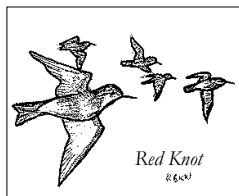
Every Problem has a Solution

By Bob Montgomery,
Volunteer

Graham Austin and I were hiking from the Brockenbridge access site north to a point past a large salt marsh, and the marsh flies* were buzzing. I pointed out that our pant legs were now black from the thousands of flies that had settled on our legs. Still, we were determined to "tough it out" and conduct our survey. After a few minutes sitting still and sorting through the flock of

Witnessing a "departure" is a highlight of working with the Delaware Shorebird Project. Following the birds with my eyes, I watch them disappear into the distant clouds until they are just a line of dots and then nothing. My heart lifts with them; they have found the resources they need here in the Delaware Bay and are

progressing in the fast paced life cycle of the hemispheric migrant.



For those who have observed Delaware's migratory shorebirds and spawning horseshoe crabs, please enjoy this

newsletter as a salute to the wildlife and people involved in the Delaware Shorebird Project. For those new to the spectacle, I welcome you to catch a glimpse through the stories, images and summaries that only begin to describe why scientists and volunteers from across the globe come to Delaware each May.

"Every Problem" cont'd from above

birds, we both began covering our feet with sand so the flies couldn't get our ankles. Graham started covering his legs and finally asked me to help bury him nearly to his waist. For me, a guy that is not normally bothered by mosquitoes or flies, they were pretty bad and pesky. But, as the picture shows, every problem has a solution!

*editor's note: the Stable fly, (*tomoxys calcitrans*) or "biting house fly" is a pernicious pest during shorebird season, but no match for our hardy team!



Photo by Bob Montgomery

A Big Thank You to our Sponsors!

The Delaware Shorebird Project is funded partially through Delaware State Wildlife Grants in cooperation with the U.S. Fish and Wildlife Service Division of Federal Assistance. In addition, we received generous donations and grants from several local corporations and small businesses. ***We extend a sincere thank you to all entities that provided assistance and sponsorship in 2006.***

2006 Sponsors

-Acme Corporate Headquarters. Malvern, PA
-Enterprise Rent a Car. Milford, PA
-Hooked on the Bay Marine. North East, MD
-Horns Machine Shop. Clayton, DE
-Pepsi Bottling Ventures of Delmarva. Harrington, DE and Salisbury, MD
-Wal-Mart Distribution Center 7024. Smyrna, DE

We would also like to thank the following individuals for their support:

Adolfo Paniagua
Jane Laughlin
Hal and Kristen Snyder

And the Following government agencies for lending us vehicles during the season:

Bombay Hook National Wildlife Refuge
Delaware Bay Estuary Project

The Old Mispillion River Light House Gains New Life

The site of the old Mispillion River Lighthouse at the mouth of the Mispillion River has stories to tell. From the original light house erected in 1831 (the first in a series of re-builds) to the abandonment of a remaining steel tower in 1998 by the Coast Guard, the location has seen a lot of change. And the harbor itself, under sentinel of the lighthouse tower, has undergone the addition of a stone jetty which protects several man made and natural sand bars. Today the harbor's

sandy "beaches" are wild, somewhat protected from humans and weather



Chris Bennett

and suitable for horseshoe crab spawning. For these and other reasons the harbor is the number one spot for migratory shorebirds in Delaware, most notably the red

knot. More than 10,000 red knots may use the harbor at once on their way north. And today the birds are a source of revival for the site; a cooperative team of DuPont, DNREC and the Town of Slaughter Beach is creating the Mispillion Interpretive Center to focus on shorebirds and horseshoe crabs. Recovering an abandoned on site restaurant, the Center is slated to open in spring 2007 with a viewing deck and fishing pier extending into the bay, interpretive exhibits and educational staff.

Interpretive Center Sneak Preview Weekend



Kevin Kalasz

On Saturday, May 27th and Sunday, May 28th, shorebirds were at their peak in Mispillion Harbor, and the normally empty porch of the former Mispillion "restaurant" saw approximately 150 visitors. The event? A DuPont sponsored "Sneak Preview" of the future Mispillion Interpretive Center. Some guests brought spot-

ting scopes and bird books, eager to see red knots and other migratory shorebirds. Others came empty handed but full of curiosity and questions for members of the Delaware Shorebird Project. Visitors also included reporters from the Milford Beacon, the Milford Chronicle and Delaware State News. All were captivated by the throngs of shorebirds filling "back beach" and the "point". Many had no idea that Mispillion offered such a wealth of wildlife viewing opportunity and important habitat. On Saturday when shorebird numbers were at their highest, DFW staff would point out the black mat on back beach that looked almost

like soil or peat from a distance. Visitors would gape at the scene inside the spotting scopes- squirming masses of birds. Photographers set up their equipment and eager learners peppered staff with questions about this remarkable occurrence. Some people didn't want to leave, others returned later in the day. The weekend was a wonderful preview of the future Center and a magical glimpse of the shorebird-horseshoe crab phenomenon at its best. Special Thank you to **Greg Smith** of DuPont and **Lacy Nichols** of DNREC for their work in organizing and preparing for the event.



Chris Bennett

The Shorebird Project's Extraordinary Volunteers

Can you imagine working 10-14 hour days, 7 days a week for three weeks straight and loving it? Dropping to sleep exhausted only to peel yourself up and head out to catch shorebirds before dawn? Pacing your day by the movement of birds? And strengthen-



ing your skills of bird handling, banding, measuring and identification each day? The Delaware Shorebird Project team is made up of a handful of dedicated staff and a troupe of passionate, knowledgeable, skilled and tireless volunteers from the United States, the U.K and the Netherlands who do just that, year after year. Karen Bennett, Divi-

sion of Fish and Wildlife Program Manager says "After all these years the team is like a family". In 2006, 49 volunteers put in 3,300 hours of volunteer work. Some of this time will be counted as match for federal grants, helping to fund the project and supporting this important work in more ways than one. **See Volunteer Recognition on page 6**

2006 Volunteers:

Natasha Atkins
Graham Austin
Katie Battaglia
Chris Bennett
Gregory Breese
Paul Brotherton
Kathleen Britts
Jeff Bryman
Lois Bryman
Mark Cameron
Jacquie Clark
Nigel Clark
Harry Croft
Rebecca Dunne
Kar DeGeiso
Steve Dodd
Andre Duiven
Patrick Erbland
Dennis Elphick
Simon Gillings
Jerry Goldsmith
Sharon Goldsmith
Jonathan Gottsche
Susan Gruver
Gene Hess
Leigh Hesselstine
Alexa Jacobs
George Jacobs
Louisa Jonas
Uday Kumar
Bob Montgomery
Lys Muirhead
Holly Niederriter
Sally O'Byrne
Chris Ordiway
Rebecca Orth
George O'Shea
Marnie Pepper
Rob Robinson
Bob Rufe
Sally Shelton
Charlie Sheppard
John Tayleur
Sarah Tegtmeyer
Victoria Withington
Jean Woods
Pete Zeigler

Volunteer Pages

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All 2006 Delaware Shorebird Project Volunteers gave substantial time in training, in the field and in the lab. Each volunteer deserves full applause and recognition, but there is simply not enough space to celebrate each person in detail here. A handful of volunteers garner special mention for their role in the project.

International Volunteers

For the 10th consecutive year, volunteers from the British Trust for Ornithology and the Wash Wader Ringing Group gave precious vacation time to work long days with few days off for 2-3 weeks. They provided technical support and training for lab and field techniques, data entry and analysis, management of a daily log of field activities, food shopping and cooking for the team, skillful photography, immense passion for shorebirds and overall team morale.

BTO and Wash volunteers for 2006:

Graham Austin, Nigel Clark, Jacquie Clark, Steve Dodd, Andre Duiven, Dennis Elphick, Simon Gillings, Lys Muirhead and Rob Robinson. *Thank you all!*

Domestic Volunteers

Natasha Atkins was new to the Delaware Shorebird Project in 2006, but she brought with her skills from previous shorebird research experiences. She is on the board of Manomet Center for Conservation Sciences and has years of work experience with conservation efforts. Natasha was able to stay with us for one week, offering excellent support in the field and at our home base in Slaughter Beach. *Thank you Natasha!*

Katie Battaglia, Rebecca Dunne and Sarah Tegtmeyer of Tristate Bird Research and Rescue were able to take time from their busy season of oiled, orphaned and injured bird rescue and rehab to work and learn with our team. Their enthusiasm for working with birds, their level of experience and skill and their great team spirits were appreciated by all. *Thank you Katie, Sarah and Rebecca!*

Chris Bennett took off a week from his DNREC job to offer his skills in resighting. He also designed the new Delaware Shorebird Project logo and took some fantastic photographs throughout the season, some of which can be found in this newsletter and on our website. *Thank you Chris!*

Paul Brotherton of California spent nearly the entire month of May volunteering for the Shorebird Project. Paul brings experience volunteering with wildlife internationally and a lifetime of being on the water. Paul couldn't get enough of Mispillion Harbor and spent day after day recording hundreds of flagged bird resightings. His helpfulness and dependability as a team member were appreciated by the entire group. *Thank you Paul!*

Jonathan Gottsche was new to Delaware Shorebird Project in 2006 and was able to spend over two weeks with the project, offering a tremendous amount of energy and morale to the team. He also shared knowledge acquired through years as a naturalist and recent involvement in bird banding operations throughout the eastern states. *Thank you John!*

Gene Hess and Dr. Jean Woods of the Delaware Museum of Natural History offered work days and weekends to the Shorebird Project for their 10th and 6th respective years. *Jean Woods*, Curator of Birds at the Museum, shared her knowledge of field research

Cont'd on page 8

Memorable moments:

Dolphins and Wilson's storm petrels from the ferry on route to New Jersey.

-Simon Gillings



Photo by Chris Bennett

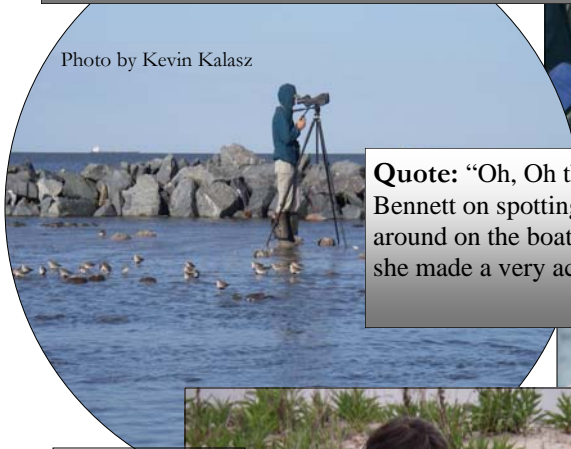


Photo by Kevin Kalasz

Quote: "Oh, Oh that bird's got a red neck", Karen Bennett on spotting a red phalarope while spinning around on the boat in Mispillion Harbor. It's said that she made a very accurate impression of a phalarope.

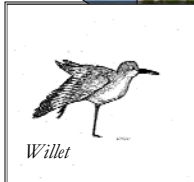
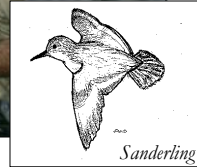


Photo by Chris Bennett



Memorable moment: Our last catch on June 6th yielded a total of 9 different species. This included several that are not often banded or measured such as black-bellied plovers, black-necked stilts and white-rumped sandpipers.



Semipalmated Sandpiper



Quote: "Can we go now?" "Shall we?" "You first" "No, after you" "Oh just go" "OK, bye" "Oh I think I left the oven on"

-Simon Gillings on interpreting a ruddy turnstone "departure"

Memorable moment: Andre fully submerging himself in Mispillion Harbor waters to get the very best of photographs and resightings.

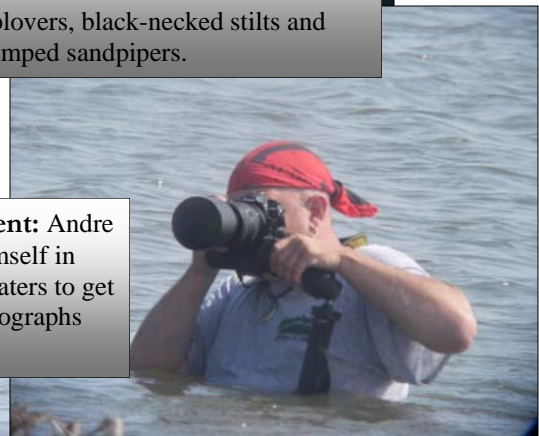
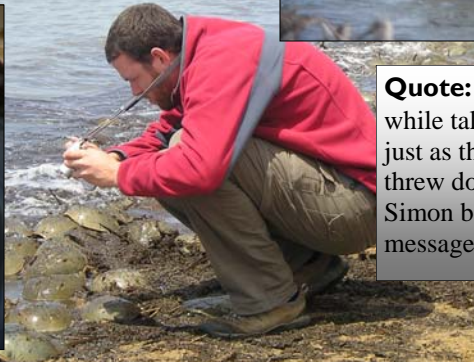


Photo by Chris Bennett



Photo by Bill Buchanan



Quote: "Oh the Bang!", Annie Jacobs while talking on the phone with Simon just as the cannon net was fired. She threw down the phone and then called Simon back, but he'd already heard the message- and the bang.

Photo by Natasha Atkins

For more scenes from the season, visit the 2006 Delaware Shorebird Project Photo Gallery at <http://www.fw.delaware.gov/Shorebirds/2006Wrap2.htm>

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Brianna Barkus, *Field Assistance*

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Kevin Kalasz, *Project Coordinator*

Annie Jacobs, *Volunteer Coordinator*

Dawn Webb, *Conservation Outreach*

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Dick Weber, *Lead Egg Survey Scientist*

BobbiAnn Barnes, *Seasonal Technician*

Allison Watts, *Seasonal Technician*

Pataareeya Finger, *Seasonal Technician*

Crystal Stanley, *Seasonal Technician*

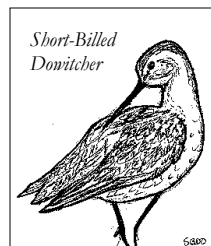
About the Delaware Shorebird Project

Since its 1997 inception under the Delaware Department of Natural Resources and Environmental Control's Division of Soil and Water's Coastal Management Program, the Delaware Shorebird Project has conducted research and monitoring on the health and status of shorebird populations including Red Knot, Ruddy Turnstone, Sanderling, Dunlin and Semipalmated Sandpiper. Today the Project is managed by the Division of Fish and Wildlife's Natural Heritage and Endangered Species Program. The goals of the Delaware Shorebird Project are to identify and protect the resources critical to migratory shorebirds and to reduce the threats to those resources.

Partner Organizations:

British Trust for Ornithology
Delaware Museum of Natural History
Manomet Center for Conservation Sciences
Tri-State Bird Research and Rescue
Delaware Estuary Program (with Partnership for the Delaware Estuary)
Royal Ontario Museum
US Fish and Wildlife Service
US Geological Survey
Wash Wader Ringing Group

To learn more about the Delaware Shorebird Project or to report a flagged shorebird, contact Kevin Kalasz at 302-653-2880.



Volunteers, cont'd from page 6

techniques and ornithology, assisting with volunteer training; catches; resighting; lab work; equipment organization and data entry. Jean's helpful attitude and skill set is a major asset to our team. **Thank you Jean!** Gene Hess, Collections Manager at the Museum, offered his knowledge of shorebird plumage during volunteer training and catches. He completed daily resighting surveys at Port Mahon, collecting a steady baseline of data for the site. And, as usual, Gene and his wife Sally (also a Project volunteer) cooked a delicious Mexican Dinner for the team. Only this year they did it twice! **Thank you Gene!**

Uday Kumar, a shorebird volunteer since 2003, was able to take off extensive time this year from his job as a DuPont Chemist. His favorite activity is resighting where he is able to put his fine birding skills to use on Delaware's beaches. Uday also used his creativity in the kitchen and cooked a number of delicious meals for the team. **Thank you Uday!**

Bob Montgomery is a retired U.S Fish and Wildlife Service Biologist and has been a master bander for waterfowl. Bob joined us for a week and eased into the art of banding and measuring shorebirds. Bob's good nature and helpful attitude were a daily

asset to the team. And, he says, he had a blast. **Thank you Bob!**

Gregory Breese of the US Fish and Wildlife Service offers his time and well honed field skills year after year to the Delaware Shorebird Project. **Thank you Greg!**

Bill Buchanan volunteered his skills in photography and videography to the Project in 2005 and 2006. **Thank you Bill!**

The following volunteers have contributed several years of valuable time to the project:

Sally O'Byrne

Chris Ordiway

George O'Shea

Marnie Pepper

Bob Rufe

John's Curry Soup

Ingredients:

Medium Curry Powder
Mild Chilli Powder
Cinnamon
Nutmeg
Cumin
Coriander (fresh if possible)
Garlic
Ginger
Butter and/or Olive oil
Chicken (or prawns)
Onions
Sweet potatoes
Carrots
Mushrooms
Tomatoes (fresh or canned)
Coconut milk
Worcester Sauce
Chicken Stock

Directions:
Melt butter/oil and add all herbs and spices to simmer over a very low heat
Add Onions and cook until golden brown
This will taste best if the remains of a roast chicken are boiled up to create chicken stock.
If raw chicken is being used, add at this point and cook for 10ish minutes
Add chicken stock and all vegetables.
Simmer until everything is cooked, adding the coconut milk in the last ten minutes.
Sprinkle some fresh coriander at the end.